

Claims:

1. A mirror system for a vehicle comprising a driver's side viewing device located in a mirror housing mounted on the vehicle wherein a first section of the mirror housing contains a viewing surface in the interior of the vehicle and a second portion of the mirror housing optically open to the outside of the vehicle; said first section of the mirror housing adapted to contain one or more substantially right angle triangular prisms having two sides of substantially equal length and two vertices of substantially equal angles; said prism mounted in the first section of the mirror housing so that one of the two sides of equal length of said prism is positioned in an opening facing the interior of the vehicle to provide the viewing surface; the second one of the sides of equal length is facing to the exterior of the vehicle; said second section of the mirror housing sized and shaped to contain operative optical elements comprising one or more reflective means mounted in the second section of the mirror housing at an angle to the second one of the sides of equal length of the prism(s) in the first section of the mirror housing so that when the driver looks through the viewing surface of the prism he can see objects to the side and rear of the vehicle.

2. A mirror system according to claim 1 wherein the reflective means mounted in the second section of the mirror housing includes a first flat mirror positioned in the second section of the mirror housing in a manner to permit the driver to look through a first section of the viewing surface of the prism and see if another vehicle is in the blind spot area along the side of the vehicle.

3. A mirror system according to claim 2 wherein the first flat mirror is mounted at an angle of between 50° to 70° degrees to the second one of the sides of equal length of the prism.

5 4. A mirror system according to claim 3 wherein the first flat mirror is mounted at an angle of about 60 degrees to the second one of the sides of equal length of the prism.

10 5. A mirror system according to claim 4 wherein the angle of the first flat mirror can be adjusted from about 1° to 5° degrees.

15 6. A mirror system according to claim 2 wherein the reflective means mounted in the second section of the mirror housing further includes a second flat mirror mounted in the second section of the mirror housing in a manner to permit the driver to look through the a second section of the viewing surface of the prism and see to the rear and along the side of the vehicle.

20 7. A mirror system according to claim 6 wherein the second flat mirror is mounted at an angle of between 35° to 50° degrees to the second one of the sides of equal length of the prism.

25 8. A mirror system according to claim 7 wherein the second flat mirror is mounted at an angle of about 45° degrees to the second one of the sides of equal length of the prism.

30 9. A mirror system according to claim 8 wherein the angle of the second flat mirror can be adjusted from about 1° to 5° degrees.

10. A mirror system according to claim 1 having two substantially right angle triangular prisms having two sides of substantially equal length and two vertices of substantially equal angles mounted in the first section of the mirror housing one above the other.

11. A mirror system according to claim 6 wherein the first flat mirror and the second flat mirror are mounted in the second section of the mirror housing one above the other.

12. A mirror system according to according to claim 6 having only one substantially right angle triangular prisms having two sides of substantially equal length and two vertices of substantially equal angles mounted in the first section of the mirror housing and wherein the first flat mirror and the second flat mirror are mounted in the second section of the mirror housing laterally beside each other.

13. A mirror system according to claim 2 wherein a second substantially right angle triangular prism is mounted in the second section of the mirror housing in a manner to permit the driver to look through the a second section of the viewing surface of the prism and see to the rear and along the side of the vehicle.

14. A mirror system according to claim 1 wherein means are provided for said section of the mirror housing so that the operative optical elements are protected from the elements and permit the driver to see objects to the side and rear of the vehicle.

15. A mirror system according to claim 14 wherein said means are provided for said section of the mirror housing so that the operative optical elements are protected from the elements and permit the driver to see objects to the side and rear of the vehicle is a transparent cover placed over the rear of said second section of said mirror housing.

16. A mirror system for a vehicle according to claim 1 further comprising a passenger's side viewing device located in a second mirror housing mounted on the vehicle, said second mirror housing sized and shaped to contain operative optical elements, said operative optical elements comprising two different reflective means mounted in the mirror housing at an angle so that the driver can see objects to the passenger's side and rear of the vehicle, said two different reflective means comprising a first flat mirror positioned in the mirror housing at an angle to permit the driver to see if another vehicle is in the blind spot area along the side of the vehicle and a second flat mirror mounted at a different angle to permit the driver to see to the rear and along the side of the vehicle.

17. A mirror system for a vehicle according to claim 16 wherein said driver and passenger side viewing devices are mounted adjacent the driver side and passenger side door frames.

18. A mirror system for a vehicle according to claim 7 wherein said second portion of the mirror housing has an opening facing along the side and to the rear of the vehicle and a diverging lens is placed adjacent said opening between the opening and the second flat mirror.

19. A mirror system for a vehicle according to claim 18 wherein the diverging lens is a plano concave lens.

20. A mirror system for a vehicle according to claim 17
5 wherein said driver and passenger side viewing devices are mounted in the driver side and passenger side door frames.